Towards the Creation of a Statewide Virtual Learning Policy in Rhode Island

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Overview

Efforts to reform the public school system in the United States have, until recently, centered on issues such as teacher quality and effectiveness, class sizes, testing, and accountability. Over the past two decades, virtual learning has changed the educational landscape, redefining what it means to teach, and learn in the twenty-first century. Approximately one million children engage in some form of online learning, a figure that represents two percent of the K-12 population (Lips, 2010). Twenty-seven states have statewide virtual schools, and twenty-four states and the District of Columbia offer students the opportunity to enroll full-time in a virtual school. (Lips, 2010). Virtual learning is growing at a rate of forty percent annually (Patrick and Vander Ark, 2011).

According to the Alliance for Excellent Education, virtual learning can address three major challenges in education – the need for students to develop higher levels of knowledge and skill, the decrease in federal, state and local revenues for education spending, and the importance of effective teaching and high-quality content in the classroom. States should embrace online learning opportunities in order to provide quality instruction to students, improve efficiency, and increase college and career readiness among students (Wise and Rothman, 2010). Noting that the global economy needs a skilled workforce, and that only sixty percent of students graduated from high school in 2006, the organization recognizes the demand for swift, and effective action, and the promise of technology.

Virtual learning fills curriculum gaps, addresses the varied academic needs, and learning styles of students, and supplements instruction (Tucker, 2007). Virtual learning breaks down geographic and demographic restrictions; proximity to a good school no longer determines student access to quality instruction and content (Lips, 2010). It expands the range of courses

small, rural, or inner-city schools can offer students. Students with job responsibilities, and other scheduling conflicts have greater flexibility, and can receive online instruction outside of school. States have also used online learning as a credit recovery tool for students falling behind in their studies (Wicks, 2010). In addition to servicing a range of students, including pregnant or incarcerated youth, elite athletes and performers, and students confined to their homes due to illness and injury, online learning infuses technology literacy into academic content, and can serve as a professional development tool for teachers (Wicks, 2010).

In light of the benefits of virtual learning, it is imperative to define the term, and briefly explore the different types that exist in the United States.

Online learning defined

The International Association for K-12 Online Learning (iNACOL) defines online learning as "education in which instruction and content are delivered primarily over the Internet" (Online Definitions Project, 2011). Online programs differ in their comprehensiveness, reach, type, location, delivery, operational control, and type of instruction. Students can enroll in a full-time online course, or in a supplemental program that offers individual courses. Online programs are not confined to brick-and-mortar schools and can be accessed at home or in other establishments. Students can interact with teachers, tutors, and other students through e-mail, online discussion forums, message boards, and podcasts (asynchronous) or in live time through the same space (synchronous). Instruction can also vary from fully online to face-to-face contact; blended learning is a hybrid of the two ends of the spectrum, and refers to student learning in a supervised brick-and-mortar location, and online (Online Definitions Project, 2011). Online programs can serve students in a particular district, or across the globe; operational

control can rest in a local school board, consortium, regional authority, university, state, or

independent vendor. See Appendix A for a summary chart.

State policy challenges

Because online learning has many dimensions, and can take on many forms, state

policymakers must proceed with caution in defining online learning, and identifying the

programs covered by certain policies (Watson and Gemin, 2009). An Idaho state audit revealed

that the state did not have any procedures in place for online programs other than virtual charter

schools; as a result, it could not regulate them, and was not aware of the number of online

programs that operated in the state. The legislature created a legal definition of virtual schools,

and other states, have similarly, developed definitions that outline the key elements of an online

program. Given the rise of blended learning, states have also struggled to define the threshold

that separates online from blended learning. To what extent, if any, should blended learning

programs be subject to online learning policies? Some states, such as Indiana, have addressed the

blended learning dilemma by using percentages of online instruction to delineate online schools

(Watson and Gemin, 2009).

A 2003 Center for Policy Studies, Education, Research, and Community Development

examination of virtual learning policies and practices in the fifty states highlighted twelve

considerations for the design, development and eventual implementation of virtual learning

policy. The policy brief included the need for accredited instruction, and curriculum content

standards, as well access to all students. In addition to quality content and instruction, districts

and states should consider the types, and the number of online providers. Although the brief is

nearly a decade old, it is a good prelude to the creation of Digital Learning Now's Ten Elements

in Virtual Learning.

Funding

The most important issue in virtual learning policy is the school finance system (Policy brief, 10 Digital Learning Now Elements, Lips, 2010). Paul Hill (2011) calls for changes in the finance system so that funding follows the student. The current system in the United States is a "labyrinth of rules and regulations," where districts control how money is spent, and which teachers, and resources are allocated to schools (Hill, 2011). Hill cites the number of regulations on the use funds, and human resources, and concludes that the school finance system discourages experimentation, innovation, and ample use of technology. Even in instances where it is clear the money would go to one place, as in the case of virtual schools, states and districts have a number of funding options available to them, such as state-based school funding, and federal categorical program funding. Funding may be available, but it may not follow the student.

A technology-friendly finance system would discontinue the current practice to fund programs, and instead fund K-12 education (Hill, 2011). Money divided by enrollment would no longer be centrally controlled, and would follow the student whenever he/she moves to a more suitable school. States and districts should also consider funding students based on outcomes, instead of seat-time requirements or census dates. In 2003, the Florida legislature adopted a performance-based funding model in which Florida Virtual School receives money once students have successfully completed their courses (Tucker, 2007). Michigan's State Superintendent has awarded fourteen public school districts and public school academies with seat-time waivers in order for students to take online courses on a full-time basis (Watson and Gemin, 2009).

Paper Overview

The paper will examine the Digital Learning Council's Ten Elements of High Quality Digital Learning and their applicability to the creation of a statewide virtual learning policy in Rhode Island. The paper will analyze the extent to which Rhode Island's current distance learning policies in higher education, and adult education, and practices match the design of the Ten Elements. Data collected from the 2010 Technology Capacity Survey, the Eighth Grade Technology Literacy Assessment, and Recommendations for the Organizational Structure, Staff Support and Resource Allocation of Higher Education in Rhode Island will further understanding of Rhode Island's virtual learning landscape. The analysis conducted of the strengths, and gaps in the state's policy framework will inform recommendations to the Rhode Island Department of Education (RIDE). Recommendations on how best to formulate a statewide learning policy will also be guided by the work of other states that have pioneered in the virtual learning field.

Although the paper can contribute to RIDE's virtual learning work, it is also important to be mindful of its limitations. The paper will not include input from students, teachers, parents, and administrators – the population most affected by the creation of a statewide virtual learning policy. It also assumes that the Ten Elements of High Quality Learning provides an adequate framework for policymakers. The paper, however, will serve as a starting point for RIDE as it begins to design a policy that benefits all stakeholders.

Digital Learning Now

In 2010, former Governors of Florida, and West Virginia, respectively, Jeb Bush and Bob Wise convened over one hundred leaders from education, government, philanthropy, business, technology, and think tanks to form the Digital Learning Council. The Council was charged with

creating a roadmap for reform, and identifying policies that would integrate the use of technology in public education. The Council developed the ten elements, and recommendations for policymakers from individual interviews, over forty web conferences, and e-mail exchange with members.

The Ten Elements of High Quality Digital Learning are statements to guarantee digital learning access to all students, and outline the value-add of digital learning in public education. Two of the elements address the need for high-quality digital content, and instruction to all students. All students are digital learners, and can use digital learning to customize their educational experience. Policymakers should ensure that funding, and infrastructure support digital learning. Content and instruction evaluations should center on student learning. Appendix B provides a summary of the Ten Elements, which will serve as the theoretical lens for the study of virtual learning in Rhode Island

The Rhode Island Context

The Digital Learning Now state report card, Alliance for Excellent Education brief, and Keeping Pace 2011 state snapshot reveal that Rhode Island does not have a state virtual school, statewide online schools, and "little online activity" (Watson, Gemin & Wicks, 2011). The reports do not include information on distance education programs and policies in adult or higher education. Taken together, they provide little contextual understanding of the policy landscape in Rhode Island, and make modest mention (if any) of more recent state initiatives.

Programs, policies, and surveys (whenever available) in K-12, higher education, and adult education were used in order to conduct a more comprehensive analysis of Rhode Island. Appendix C has a summary table of the findings. In addition to the Ten Elements framework, the

table indicates how the different education sectors define virtual learning. As noted before, state policymakers have struggled to define virtual learning, and Rhode Island's statewide virtual learning policy will indubitably have to address the definition dilemma. While "little online activity" may have characterized Rhode Island in the past, the state is making strides to integrate technology into education.

K-12 Education

Unlike higher and adult education, Rhode Island does not have a virtual learning policy in place for K-12. While K-12 may not have an established definition of online learning, RIDE has expressed interest in adopting iNACOL's definition in the future. The 2011 secondary regulations stipulate that coursework requirements can be fulfilled through online learning. Middletown, Pawtucket, and Woonsocket are among the school districts that currently use online learning. Woonsocket's E-Learning Academy is the longest-running program in the state, and was initially developed in 2005 as an alternative for struggling students; E-Learning Academy was later expanded and made available to all high school students. Individual school districts offer online courses through the Virtual High School Global Consortium, and Virtual Learning Academy.

Although Rhode Island does not have a seat-time requirement, and digital learners are not subject to the class-size restrictions and/or teacher-student ratios in traditional schools, many students do not have access to digital learning courses. The 2010 Technology Capacity Survey, which was filled out by 290 schools, and 50 LEAs throughout the state, points out that eighty percent of schools had not purchased Internet-based distance learning courses; forty-nine percent of schools surveyed did not use Internet-based content as supplementary material (see Appendix

C for figures). RIDE is currently conducting the 2011 survey, which will provide additional information on the extent to which schools use virtual learning. The Learning.com Technology Literacy assessment for eighth graders shows that over the past three years, a larger percentage of students have achieved the technology proficiency standard; in 2010, seventy-two of students were proficient, and had correctly answered a higher number of social and ethical skill questions. Although the 2011 secondary regulations suggest a competency-based model, Rhode Island has not fully seized the opportunity to provide students with a high-quality digital learning environment.

Efforts to offer personalized learning include the development of a virtual learning math module, and the Innovation Powered by Technology: One-to-One Model School (E2T3) Grant. The six to eight web-based math modules, which will be piloted in March 2012, will support students who are in danger of not meeting proficiency on the state assessment, and will be available to all high school students. RIDE will use Race to the Top funds to finance the modules, which will feature an online "math lab," and an online tutor. E2T3 is a two-year grant "to assist a model one-to-one school in the use of innovative technology instructional strategies and re-imagining teaching and learning environments" (E2T3 grant, 2011). LEAs are encouraged to apply for the grant, which will be made available on January 6, 2012. The LEA will be the fiscal agent, and primary partner with the higher education institution or collaborative. The E2T3 award recipient will serve as a model for other schools in the state.

Rhode Island is also moving forward in ensuring students demonstrate competency, and receive quality digital content, and instruction. The 2011 secondary regulations require students to be partially proficient on the NECAP assessment in order to graduate from high school. Distance learning vendors are also aligning content to Common Core standards, and in the

future, RIDE will use iNACOL to evaluate content. Rhode Island also has certification reciprocity for online instructors certified by another state, and permits teachers to be "teacher of the record" in more than one school. Lastly, the Enhancing Education Through Technology Model Classroom grant awarded high technology need, high poverty and low-performing elementary and middle schools with necessary technology equipment, and professional development for teachers to integrate technology in their classrooms (Walsh et al, 2010).

The state, moreover, does not have any laws limiting access to multiple quality providers, will transition to an online assessment in 2014, and has a funding formula where the money follows the student. While Rhode Island allows for virtual charter schools, the state does not currently have any. Some schools contract with Virtual Learning Academy for credit recovery, and NOVA Net for interventions. In the future, Rhode Island intends to have a statewide process to approve digital learning providers. Charter school regulations require a provider to meet state and federal regulations. In the 2010 TechCapacity survey, ninety percent of schools and LEAs used computer-based assessments such as the NWEA and PALS to target specific populations. The Learning.com assessment also measures the computer literacy skills of eighth grade students. Lastly, although the money follows the student in Rhode Island, the funding formula is a recent development, and more information on the funding mechanisms (especially as they relate to virtual learning) is necessary.

An area for improvement in K-12 is the infrastructure – broadband, wireless, and devices – to support digital learning. The Rhode Island Telecommunications Educational Access Fund (RITEAF) is a subsidy program that provides for high-speed broadband Internet access in schools. The program receives matching funds from the federal E-Rate program, and depends on a surcharge on the services provided by all telecommunications carriers in the state; as the

number of landlines decrease in the state, the fund receives less money, which threatens its ability to provide libraries and schools with continued Internet access. The Regents' FY13 Capital budget includes a $20 million technology bond request that, if approved, would extend wireless access to all schools in the state. The state does not have enough devices to service all students in the state. The 2010 TechCapacity survey indicated that forty-nine percent of schools had no computer labs, and eighty-two percent had not conducted a survey to determine if students had Internet access at home. Rhode Island has 140,000 students, and 40,000 devices, or roughly 3.5 students to one device.

Higher Education

Higher education institutions in Rhode Island rely on the 1997 policy and standards on distance learning. The policy predates Digital Learning Now efforts, and similar to a bill of rights, it makes certain normative statements but does not outline how institutions should carry out those obligations. Most recently, Richard A. Licht, Director of the Department of Administration (DOA) conducted a four-month analysis on the organizational structure for higher education governance, staff support and resource allocation in Rhode Island. The Board of Governors for Higher Education has received a copy of the report, and in an e-mail exchange with Kelly Mahoney, Policy Director at the DOA, she noted that the Board "has been very supportive of the findings and recommendations."

Similar to the definition provided by the adult education learning policy, the 1997 distance education policy for higher education defines distance learning as a "system and a process that connects learners with distributed learning resources." Distance learning is

characterized by a separation of place and/or time, and interaction through one or more media; the use of electronic media is not required.

In terms of access to digital learning, personalized instruction, and advancement, the policy and standards are vague, and do not denote how "distance learning should improve and increase students' accessibility to education opportunities." The standards mention that students eligible for distance education must satisfy college admissions requirements. The standards also state that a "student must have access to appropriate academic support services" but they fail to mention whether the support services can be provided online, face-to-face, or both. Students should also receive "timely feedback regarding progress and performance" but the policy and standards do not state whether or not students progress based on demonstrated competency.

The language concerning quality content, instruction, and choices is as equally ambiguous. The policy simply calls for the "maintenance of academic quality." The standards specify that a faculty teaching a distance learning course must be a regular employed faculty but do not require faculty to undergo any distance learning training or tutorial. The evaluation of distance learning faculty can differ from (but must be equivalent to) the institution's faculty evaluation practices. The policy defines a provider as a college/university, school, business and industry, professional organization, labor union, government agency, military and other public/private organization. The policy is most concerned with the physical presence of the distance learning provider; if a college or university provider does not have physical presence in Rhode Island, it is not subject Board of Governors regulations.

The policy and standards provide little guidance for assessment and accountability, and make minimal reference to funding, and infrastructure. The policy asks institutions to "conduct

the necessary oversight to guarantee the quality of the distance learning offerings" but does not

further describe the term oversight. The standards for agreement among entities include student

costs, services, and rights, and instructional resources. Agreements "must describe complete

costs to students, refund policies, complaint procedure" but it not clear how the programs are

funded, and whether or not a cap exists on how much students can be charged for a course.

Similarly, the agreements "should describe instructional equipment, instructional support

equipment, instructional support personnel…and delineate which entity will supply these,"

which suggests that the institutions have the necessary infrastructure.

Two of the eight recommendations made by the Licht Commission report are particularly

relevant to virtual learning in Rhode Island. In his report to the General Assembly, Licht

recommends the establishment of a Joint PK-20+ Advisory Committee between the Board of

Governors, and the Board of Regents. The Committee would promote lifelong learning, and

create a pipeline between staff, and decision-makers; the Committee would also support "the

adoption of Common Core standards at both levels of education," and create a feedback loop

between postsecondary educators and elementary and secondary schools. The Committee should

develop and support a statewide virtual learning policy so that a unified approach to virtual

learning exists at all levels. Licht's recommendation on information technology is to require the

Office of Higher Education to "develop and present a strategic plan for information technology

that includes a 'migration' plan to one functional computer system, and common course

management for distance learning." Instead of the three distinct systems in place in Rhode

Island's three public institutions, virtual learning would be centrally managed.

Adult Education

The distance learning policy for adult education is a more recent development. While adult learning providers had used distance learning prior to 2009, the policy formalized the practice, and allowed providers to report distance learning hours in the Comprehensive Adult Literacy Information System (CALIS). Policy design, development, and implementation was influenced by the larger federal context; In June 2007, the Office of Management and Budget approved the U.S. Department of Education, Office of Vocational and Adult Education's request to "collect and report demographic, enrollment and outcome data on distance education learners."

Unlike the higher education policy distance learning policy, the adult education distance learning policy is more explicit in its definition of distance education. The language used, which was adopted from the *National Reporting System Implementation Guidelines*, is similar to that used by the higher education policy. The adult education policy notes that distance education materials can include "computer software, web-based programs, and other online technology," and that teachers support students through ongoing communication. The policy also distinguishes between students taking a distance learning course only, and those who take who take a distance learning course in addition to a traditional classroom-based course during the same academic or fiscal year; in order for the latter to be considered a distance learner, sixty-one percent or more of hours attended must be in a distance learning course.

The policy targets students "on waiting lists, students who wish to accelerate in skills development, students who are unable to come to class on a regular basis, independent learners, and students who need to temporarily withdraw." Distance learning is most appealing to a younger demographic more accustomed to the use of technology. Older adults generally lack the technology skills, and equipment. One current barrier to access for adult distance learners is the

seat-time requirement in federal reporting; distance learners must have at least twelve hours of face-to-face contact with the program in order to be classified as a distance learner.

Distance learners attend an orientation, and complete a pre-assessment. The staff is responsible for providing students with level-appropriate work based on the students' scores on approved tests. The distance learning packaged software has built-in assessments, and RIDE has developed reporting functions for those programs that lack them. Adult education providers must use approved curricula for distance learning; in order to use a research-based program not on the approved list, providers must submit a formal written request. Curricula include areas such as reading, writing, math, ESOL, and GED preparation, and are aligned with GED assessments; in the future, the GED will be aligned with the Common Core standards.

The policy also explains quality instruction, and choices, assessment and accountability, and funding. The local provider must identify the staff responsible for distance learning activities. The staff, which includes at least one administration and one instructional staff person, must complete a twelve-hour RIDE Distance Learning 101 training module in order to operate a distance-learning program. Most providers have at least two software programs to address the needs of Adult Basic Education (ABE) and ESOL students. Generally, one program is used per class throughout the semester. Students can use the same program for several years until they achieve proficiency; program progression is based on skills competency. The Adult Education Assessment Policy applies to distance learning, and students must be pre-tested and post-tested. Students can be post-tested after forty hours of instruction, at the end of the semester, or after completion of the defined curricula. Assessment must occur in secure, proctored settings. No special or additional funds are available for distance learning but adult education providers can include distance learning expenditures in their budgets.

Recommendations

A statewide virtual learning policy can address the ambiguities in the higher education policy, and formalize, and encourage virtual learning practice in K-12 in Rhode Island. The statewide policy will also help develop a common understanding of what virtual education is, and how it can benefit all student learners. State-level policy can facilitate the development of local policy as well (Glick, 2005).

Unlike many states who are implementing seat-time waivers, and credit flexibility options, Rhode Island does not have a seat-time requirement, and is well-positioned to adopt competency-based learning. The statewide policy should make clear Rhode Island's intent to use competency-based learning (can be used interchangeably with performance-based learning), a system in which students advance upon mastery. Utah, the first state to develop a state online learning policy based on Digital Learning Now's Ten Elements, utilizes the term "open entry-open exit" to define a competency-based system. Open entry-open exit means:

   a) *Method of instructional delivery that allows for flexible scheduling n response to individual student needs or requirements and demonstrated competency when knowledge and skills have been mastered*
   b) *Students have the flexibility to begin or end study at any time, progress through course material at their own pace, and demonstrate competency when knowledge and skills have been mastered.*

Choice of language is also important, and Rhode Island's statewide education policy should be careful not to adopt language that would restrict virtual learning practice. New Hampshire is currently updating its policies, replacing the term "teacher" with "educator,"

"instruction" with "learning/learning strategies," and "classroom" with "learning environment." The word changes allow New Hampshire to provide students with learning "anywhere, anytime" (Patrick and Sturgis, 2011).

INACOL's report outlines a state policy framework that incorporates many of the ten elements. Rhode Island's state policy should include clauses that address the following areas:

- Student learning and learning outcomes as a policy metric

- Creation of personalized learning plans for every student

- Anytime, everywhere learning

- Modularized testing for ongoing measurement of student progress

- District and school flexibility to implement policy

- Commitment to continuous improvement

Moving forward, RIDE should welcome the contributions of stakeholders in order to develop a shared vision for virtual learning. The development of effective communication tools, and a website will also be important in engaging the greater Rhode Island community.

Conclusion

Although Rhode Island is fairly new to virtual learning, it is embarking on ambitious projects in order to provide all students with access to digital learning. Even though the analysis revealed the minimal use of virtual learning in K-12, Rhode Island does not have regulations to limit virtual learning. The adult education policy is the most complete distance education policy to date in Rhode Island; the policy makes no mention of seat-time requirements but federal law has imposed seat-time restrictions. The higher education policy governing distance education is

over a decade old, and in need of revision. The findings of this paper can serve as a conversation

starter in the development of a statewide policy.

References

Board of Governors for Higher Education. State of Rhode Island and Providence Plantations

Policy and standards on distance learning (1997). Retrieved from

http://www.ribghe.org/distance%20learning.pdf

Digital Learning Now Report: 10 elements of high quality digital learning (2010). *Foundation*

for Excellence in Education. Retrieved from http://digitallearningnow.com/wp-

content/uploads/2011/11/Digital-Learning-Now-Report-FINAL.pdf

Glick, D. (2005). *K-12 online learning policy*. Retrieved from http://www.igi-

global.com/viewtitlesample.aspx?id=12253

Hill, P. (2011). *School finance in the digital-learning area*. Creating Sound Policy for Digital

Learning. A Working paper Series from the Thomas B. Fordham Institute. Retrieved

from

http://www.edexcellencemedia.net/publications/2011/2011_CreatingSoundPolicyforDigit

alLearning/20111116_SchoolFinanceintheDigitalLearningEra_Hill.pdf

Innovation powered by technology: Enhancing education through technology training – E2T3

(2011, November). Rhode Island Department of Education, Office of Instruction.

Application retrieved from:

http://www.ride.ri.gov/Instruction/intech/E2T2/2012/2011E2T3.pdf

Instructional Technology Capacity Survey (2010). Rhode Island Department of Education.

Detailed report retrieved from

http://www.ride.ri.gov/Instruction/intech/PDF/Detailed_Report-2010_FINAL.pdf

Licht, R. (2011, November). *Administration of higher education: Recommendations for the*

organizational structure, staff support and resource allocation of higher education in

Rhode Island. Report submitted to General Assembly.

Lips, D (2010, January). *How online learning is revolutionizing K-12 education and benefiting*

students. Backgrounder: Heritage Foundation (2356).

http://s3.amazonaws.com/thf_media/2010/pdf/bg_2356.pdf

Patrick, S. & Sturgis C. (2011). *Cracking the code: Synchronizing policy and practice for*

performance-based learning. International Association for K-12 Online Learning.

Retrieved from

http://www.inacol.org/research/docs/iNACOL_CrackingCode_full_report.pdf

Patrick, S., & Vander Ark, T. (2011). *Viewpoint: Authorizing online learning*. National

Association of Charter School Organizers. Retrieved from

http://www.qualitycharters.org/images/stories/publications/Viewpoints/Vander_Ark-

Patrick_Cyber_Learning_Viewpoint_August_2011.pdf

Pearson NovaNet (2010). Snapshot: e-Learning Academy, Woonsocket High School. Retrieved

from http://www.pearsonschool.com/pdl/success/pdfs/SS_Woonsocket_RI.pdf

Phaneuf, Sandy (2010, December). Woonsocket student to be Rhode Island's first e-learning

graduate. *Woonsocket Patch*. Retrieved from

http://woonsocket.patch.com/articles/woonsocket-student-to-be-rhode-islands-first-e-graduate

Rhode Island Department of Elementary and Secondary Education, Office of Adult Education and GED. Rhode Island distance learning policy (2009). Retrieved from http://www.ride.ri.gov/adulteducation/Documents/Policy/RHODE%20ISLAND%20DISTANCE%20LEARNING%20POLICY%20final%20VERSION%200.1%2005.15.08%20da.pdf

Rhode Island Department of Elementary and Secondary Education, Office of Instruction. 8th Grade technology literacy assessment state results (2008-2011). Retrieved from http://www.ride.ri.gov/instruction/intech/TechLit4Report.aspx

Rhode Island Department of Elementary and Secondary Education, Office of Instruction. RITEAF program: Telecommunications for education, Rhode Island's access fund. Retrieved from http://www.ride.ri.gov/instruction/intech/RITEAF/RITEAF1.aspx

Tucker, B. (2007, June). *Laboratories of reform: Virtual high schools and innovation in public education*. Education Sector: Retrieved from http://www.educationsector.org/publications/laboratories-reform-virtual-high-schools-and-innovation-public-education

Walsh, H., Keith, K., Michaud, C., & Monti, J. (2010, December). *Enhancing education through technology: Rhode Island state report, fiscal year (FY) 2009 / school year (sy) 2009-10)*. Rhode Island Department of Education. Retrieved from http://www.ride.ri.gov/Instruction/intech/PDF/RI_EDTECH_StateReport_2009-10.pdf

Watson, J., & Gemin, B. (2009). *Promising practices in online learning: Policy and funding frameworks for online learning*. Retrieved from

http://www.inacol.org/research/promisingpractices/NACOL_PP-FundPolicy-lr.pdf

Watson, J., Gemin, B., Ryan, J., & Wicks, M. (2011, November). *Keeping pace with K-12 online learning: An annual review of state-level policy and practice.* Retrieved from Evergreen Consulting Associates website:http://kpk12.com/cms/wp-content/uploads/KeepingPace2011.pdf

Wicks, M. (2010, October). *A National Primer on K-12 Online Learning.* iNACOL. Retrieved from http://www.inacol.org/research/docs/iNCL_NationalPrimerv22010-web.pdf

Statewide online education program. 2011 General Session. State of Utah. Retrieved from http://le.utah.gov/~2011/bills/sbillenr/sb0065.pdf

Wise, B., & Rothman, R (2010). *The Online learning imperative: A solution to three looming crises in education*. Issue brief. Alliance for Excellent Education. Retrieved from http://www.all4ed.org/files/OnlineLearning.pdf
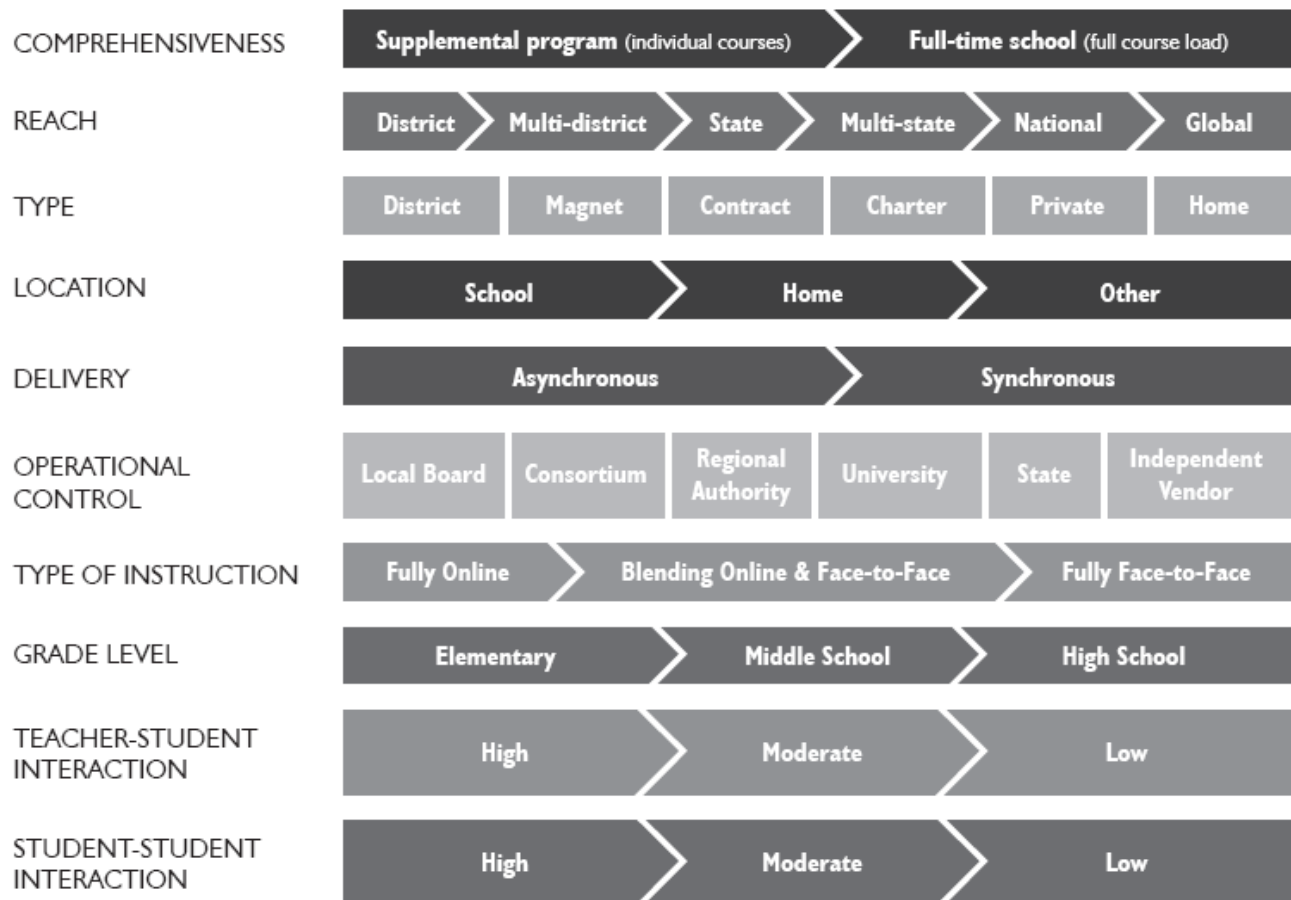
Appendix A

Figure adapted from Gregg Vanourek, *A Primer on Virtual Charter Schools: Mapping the Electronic Frontier*, Issue Brief for National Association of Charter School Authorizers, August 2006.

Figure found in Wicks, M. (2010, October). *A National Primer on K-12 Online Learning.*

iNACOL. Retrieved from

http://www.inacol.org/research/docs/iNCL_NationalPrimerv22010-web.pdf

Appendix B

Digital Learning Now!: Ten Elements of High Quality Digital Learning

1. **Student Access**: All students are digital learners.

2. **Barriers to Access**: All students have access to high quality digital learning.

3. **Personalized Learning**: All students can use digital learning to customize their education.

4. **Advancemen**t: All students progress based on demonstrated competency.

5. **Quality Content**: Digital content and courses are high quality.

6. **Quality Instruction**: Digital instruction is high quality.

7. **Quality Choices**: All students have access to multiple high quality digital providers.

8. **Assessment and Accountability**: Student learning is the metric for evaluating the quality of content and instruction.

9. **Funding**: Funding creates incentives for performance, options and innovation.

10. **Infrastructure**: Infrastructure supports digital learning.

Digital Learning Now Report: 10 elements of high quality digital learning (2010). *Foundation for Excellence in Education*. Retrieved from http://digitallearningnow.com/wp-content/uploads/2011/11/Digital-Learning-Now-Report-FINAL.pdf
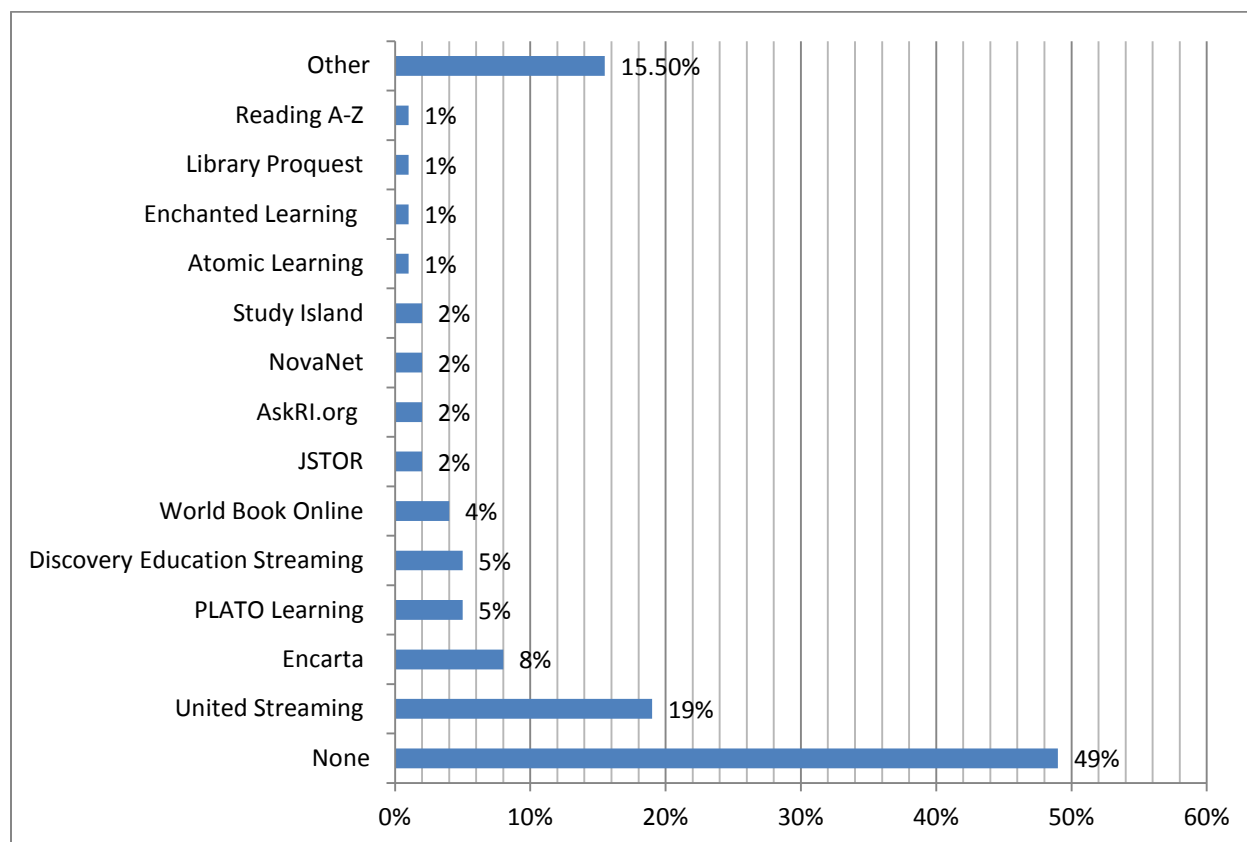
Appendix C

Figure 1. *Percentage of schools that purchased Internet-based Distance Learning Courses*. Data adapted from 2010 Technology Capacity Survey.
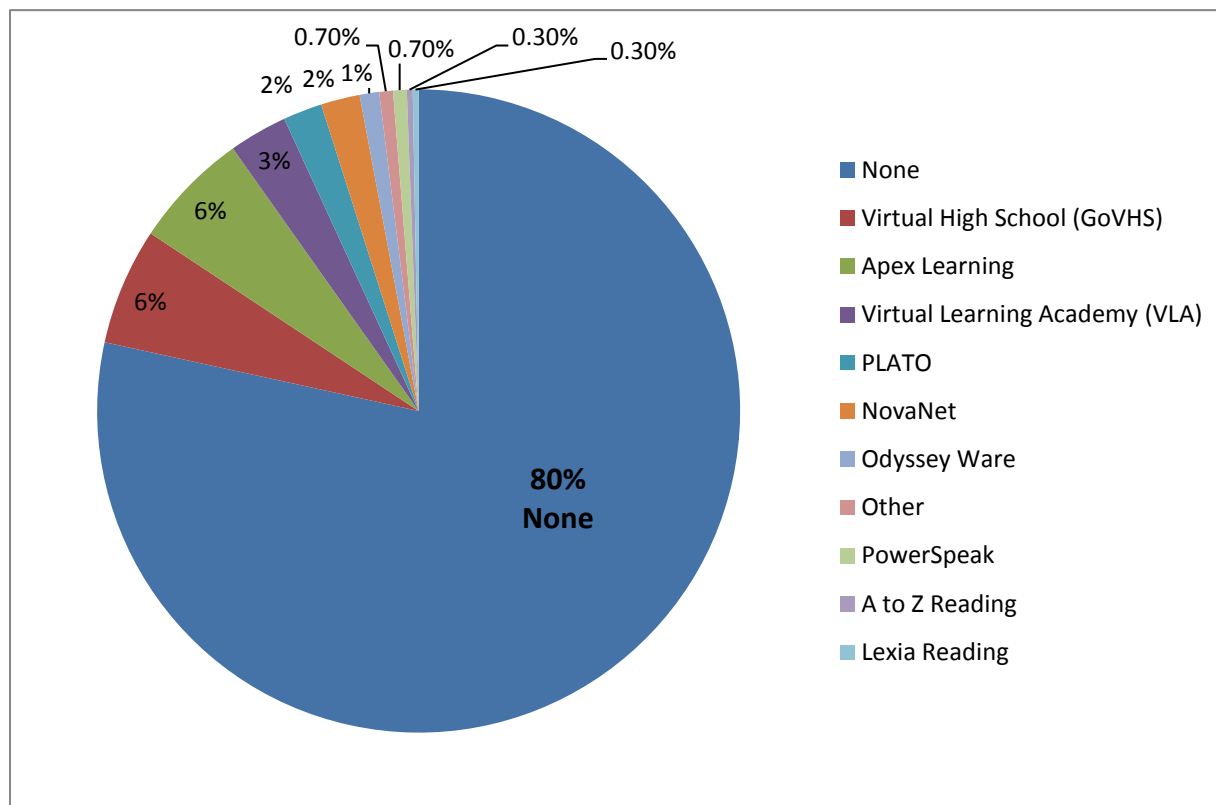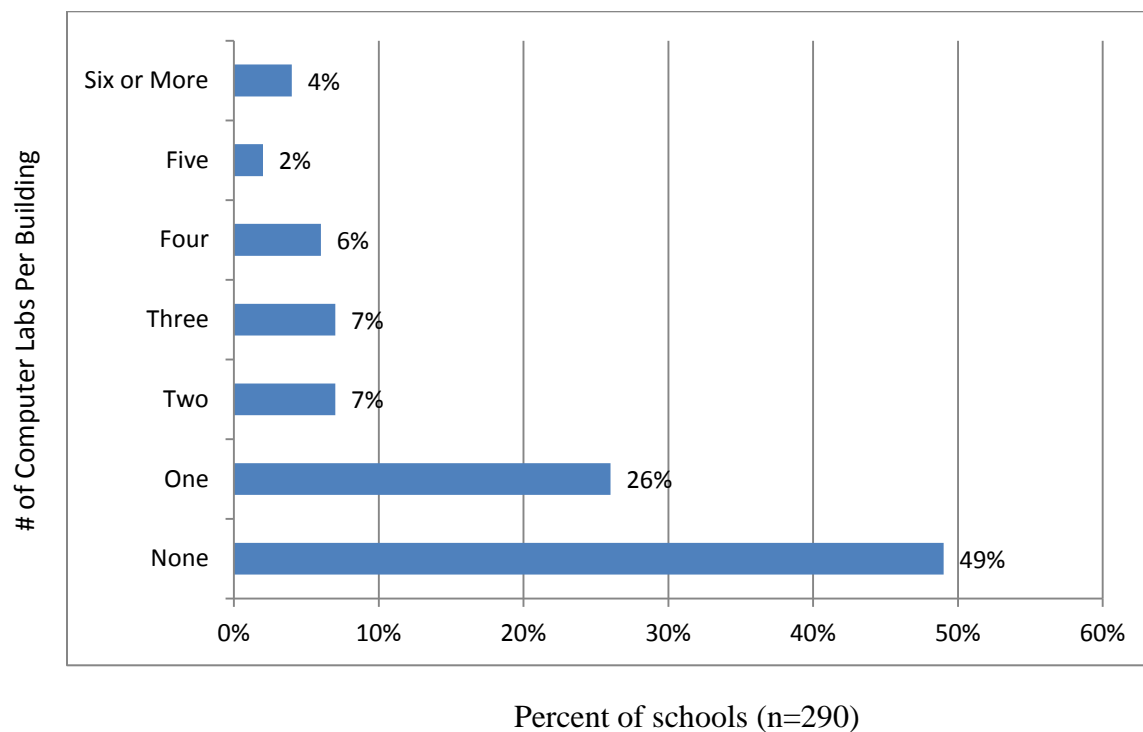

**n = 290 schools

Figure 2. *Percentage of schools who use Internet-based content as supplementary material*. 2010 Tech Capacity Survey.

Category	Percentage
Other	15.50%
Reading A-Z	1%
Library Proquest	1%
Enchanted Learning	1%
Atomic Learning	1%
Study Island	2%
NovaNet	2%
AskRI.org	2%
JSTOR	2%
World Book Online	4%
Discovery Education Streaming	5%
PLATO Learning	5%
Encarta	8%
United Streaming	19%
None	49%

Note: Percentages do not add up to 100%. Schools may use one or more of the programs above.

Figure 3. *Number (Approximate) of computer labs per School building.* 2010 Tech Capacity Survey

Percent of schools (n=290)

10 Digital Learning Now Elements	K-12	Higher Education	Adult Education
Documents surveyed:	2010, 2011 Technology Capacity Survey 8th Grade Tech Literacy Assessment E2T2, E2T3 information on RIDE website	1997 Policy on Distance Learning (DL) Standards for Distance Learning Licht Commission Report	2009 Policy on Distance Learning (DL)
Definition of Virtual learning:	No common definition exists; RIDE will adopt iNACOL definition	Distance learning: system/process that connects learners with distributed learning resources. Characterized by: • Separation of place and/or time • Interaction through one or more media (use of electronic media not required)	Distance education: formal learning activity where students and instructors are separated by geography , time or both for the majority of the instructional period Distance Learner: 1) takes DL course only 2) takes DL course and classroom-based course during same academic/fiscal yr. (61% time spent should be in a DL course)
Student Access: All students are digital learners.	RI allows Home Ed students to enroll in virtual school and individual online courses Increase in % of 8th grade students tech literate (65 – 72%, esp. in social/ethical skills) 80% schools not purchased Internet-based DL courses; 49% of schools did not use Internet-based content as supplementary material (2010 Tech Capacity Survey) 2011 RI secondary regulations: coursework requirements can be fulfilled through online learning (recognition is a local decision)	Policy is vague: DL should improve and increase students' accessibility to education opportunities (e.g., by allowing for more flexible scheduling of class time or location); DL should enhance students' educational opportunities Students satisfy college admissions requirements	Target: students on waiting lists, students who wish to accelerate in skills developments, students who are unable to come to class on regular basis, independent learners, students who need to temporarily withdraw; appealing to younger demographic Barriers for older generation: lack of tech skills, equipment
Barriers to Access: All students have access to high quality digital learning.	Not subject to class size restrictions and/or teacher-student ratios for traditional schools - No seat-time requirement 2011 secondary regulations suggest competency-based learning.		Seat-time requirement in federal law
Personalized learning: All students can use digital learning to customize their education	Innovation Powered by Technology: One-to-One Model School Grant Virtual Learning Math module	Policy is vague: DL should improve and increase students' accessibility to education opportunities (e.g., by allowing	• Orientation, pre-assessment, discussion of learner goals • Staff responsible for providing

		for more flexible scheduling of class time or location) Student must have access to appropriate academic support services	students with level-appropriate work (based on test scores, and approved tests)
Advancement: All students progress based on demonstrated competency.	NECAP partial proficiency as new graduation requirement	Students receive timely feedback regarding progress and performance	Packaged software has built-in assessments; RIDE has developed reporting functions for those programs that do not have them.
Quality content: Digital content and courses are high quality.	Trend among DL vendors towards Common Core standards In the future, RI will use iNACOL in evaluating content.	Policy calls for maintenance of academic quality	Approved curricula for DL; providers submit request to use other research-based program Aligned with GED assessments (in the future, GED will be aligned with Common Core)
Quality instruction: Digital instruction is high quality.	Teacher certification reciprocity Teachers can be "teacher of record" in multiple schools E2T2 – Technology Access grant	Faculty teaching DL must be regular employed faculty Evaluation of faculty may be different from, but must be equivalent to, those used by the institution for the evaluation of faculty teaching on-campus credit courses.	• Local provider identifies staff responsible for DL activities • Staff (1 administration & 1 instructional staff person) completes 12- hr. RIDE DL 101training module
Quality choices: All students have access to multiple high quality digital learning providers.	RI allows for virtual charter schools but state does not currently have any. In the future, there will be a statewide process to approve digital learning providers Charter school provider must meet state and federal regulations	Policy defines provider as colleges/universities, schools, businesses and industries, professional orgs., labor unions, govt. agencies, military, and other public/private orgs • If provider of DL does not have physical presence in RI, not subject to Board of Governors regulations (provider = college/university) • If provider does have physical presence in RI, subject to Regs Governing Institutions of Higher Edu Operating in RI, Regs Governing Proprietary Schools in RI	Most providers have at least 2 software programs to address the needs of ABE, and ESOL students. Generally, 1 program is used per class throughout the semester. Students can use same program for several years until achieve mastery. Program progression is based on skills competency..
Assessment and accountability: Student learning is the metric for evaluating the quality of content, courses, schools and instruction	90% of schools/LEAs used computer-based assessments to target specific populations (2010), and include NWEA, PALS.	Policy asks institutions to conduct necessary oversight to guarantee quality of DL DL course must include procedures for monitoring and assessing student	At least 12 face-to-face contact hours required DL contact hours include clock time, teacher verification or learner mastery

	RI will transition to the online PARCC assessment in 2014. Learning.com assessment targets 8th grade students.	performance	Pre-test and post-test (after min of 40 hrs of instruction, or completion of defined curricula) Adult Ed Assessment Policy applies to DL Assessment occurs in secure, proctored settings
Funding: Funding provides incentives for performance, options, and innovations	2010 funding formula: funding follows the student	Standards make minimal mention, other than that the agreement among entities should consider funding.	Include DL expenditures in budgets No specialized DL grants No special or additional funds available for DL
Infrastructure: Infrastructure supports digital learning	Broadband: State law provides for schools to have high-speed broadband Internet access (RITEAF); as the # of landlines decreases, need more money to sustain program. Wireless infrastructure: Regents' FY13 budget includes technology bond that would guarantee wireless access in all schools Devices: investments assume there is student/teacher access (PARCC, teacher evaluation, Textbook Commission) 49% of schools had no computer labs (2010); 82% schools had not conducted survey of Internet access at home 140,000 students and 40,000 devices in RI E2T3 grant program is a step forward.	Standards make minimal mention, other than that the agreement among entities should consider instructional materials.	